

Application No.: 09/147,801
Amendment dated September 28, 2004
In response to Examiner's Office Action dated April 28, 2004

AMENDMENTS TO THE CLAIMS

Please amend claim 4.

This listing of claims will replace all prior versions, and listings of claims in this application.

Listing of Claims:

Claim 1 (withdrawn): Picornavirus, comprising in the non-coding region of its viral genome a nucleotide sequence corresponding to a cDNA sequence selected from the group consisting of SEQ ID NO: 1 (Ljungan 87-012)

```
AGTCTAGTCT TATCTTGTAT GTGTCCTGCA CTGAACTTGT TTCTGTCTCT 50
GGAGTGCTCT ACACTTCAGT AGGGGCTGTA CCCGGGCGGT CCCACTCTTC 100
ACAGGAATCT GCACAGGTGG CTTTCACCTC TGGACAGTGC ATTCCACACC 150
CGCTCCACGG TAGAAGATGA TGTGTGTCTT TGCTTGTGAA AAGCTTGTGA 200
AAATCGTGTG TAGGCGTAGC GGCTACTTGA GTGCCAGCGG ATTACCCCTA 250
GTGGTAACAC TAGC
```

and homologous sequences having at least 75% homology to the SEQ ID NO: 1, and further, causing mammalian disease.

Claim 2 (withdrawn): Picornavirus according to claim 1, wherein said homologous sequences have at least 80%, at least 85% or at least 90% homology to the SEQ ID NO: 1.

Application No.: 09/147,801
 Amendment dated September 28, 2004
 In response to Examiner's Office Action dated April 28, 2004

Claim 3 (withdrawn): Picornavirus according to
 claim 2, wherein said homologous sequence is one of SEQ ID
 NO: 2 (Ljungan 174F)

```
AGTCTAGTTT CATTCTGTGT GTGTTTGGCA CTGAAATTAT TTCTGTCTCT 50
GGGGTGCTTT AACTTCAGT AGGGGCTGTA CCCGGGCGGT CCCACTCTTC 100
ACAGGAATNT GCACAGGTGG CTTTCACCTC TGGACAGTGC ATTCCACACC 150
CGCTCCACAG TAGAAGATGA TGTGTGTCTT TGCTTGTGAA AAGCTTGTGA 200
AAATCGTGTG TAGGCGTAGC GGNTACTTGA GTGCCAGCGG ACNACCCCTA 250
GTGGTAACAC TAGC
```

and

SEQ ID NO: 3 (Ljungan 145SL)

```
AGTTTGGTTC TCTCTTGAGT GTGTTTTGTG TTAGCATAAT TTCTGTCTCT 50
AGAGTGCTTT AACTCTAGT AGGGGCTGTA CCCGGGCGGT CCCACTCTTC 100
ACAGGAATCT GCACAGGTGG CTTTCACCTC TGGACAGTGC ATTCCATACC 150
CGCTCCACAA TAGAAGATGA TGTATATCTT TGTTTGTGAA ATGCTCATGA 200
AACGTGTGTG TAGGCGTAGC GGCTACTTGA ATGCCAGCGG AACCCCCCTA 250
GTGGTAACAC TAGC.
```

Claim 4 (currently amended): A protein comprising
 an amino acid sequence selected from the group consisting of
 SEQ ID NO: 4 (partial structural protein of Ljungan 145SL)

```
Lys Asp Leu Met Glu Ile Ala Arg Met Pro Ser Val Tyr Lys Gly Glu
                    5                      10                      15
Arg Thr Glu Pro Gly Gly Thr Asn Gly Tyr Phe Gin Trp Ser His Thr
                    20                      25                      30
His Ser Pro Ile Asn Trp Val Phe Asp Gly Gly Ile His Leu Glu Asp
                    35                      40                      45
Met Pro Asn Leu Asn Leu Phe Ser Ser Cys Tyr Asn Tyr Trp Arg Gly
                    50                      55                      60
Ser Thr Val Leu Lys Leu Thr Val Tyr Ala Ser Thr Phe Asn Lys Gly
65                      70                      75                      80
Arg Leu Arg Met Ala Phe Phe Pro Ile Met Met Gln Gly Thr Gln Arg
                    85                      90                      95
Lys Lys His Lys Cys Leu Phe Met Val Cys Asp Ile Gly Leu Asn Asn
```

Application No.: 09/147,801
Amendment dated September 28, 2004
In response to Examiner's Office Action dated April 28, 2004

			100					105					110				
Thr	Phe	Glu	Met	Thr	Ile	Pro	Tyr	Thr	Trp	Gly	Asn	Trp	Met	Arg	Pro		
		115					120				125						
Thr	Arg	Gly	Ser	Val	Ile	Gly	Trp	Leu	Arg	Ile	Asp	Val	Leu	Asn	Arg		
		130				135					140						
Leu	Thr	Tyr	Asn	Ser	Ser	Ser	Pro	Asn	Ala	Val	Asn	Cys	Ile	Leu	Gln		
145				150						155				160			
Val	Lys	Met	Gly	Asn	Asp	Ala	Lys	Phe	Met	Val	Pro	Thr	Thr	Ser	Asn		
				165					170					175			

Ile Val Trp,

or an amino acid sequence at least 75% identical to the amino acid sequence of SEQ ID NO: 4, and antigenic fragments of the ~~sequences~~ SEQ ID NO: 4,

wherein said antigenic fragment is not amino acid sequence VLNRLTYNSSSP.

Claim 5 (withdrawn): Antiserum or antibody directed against a structural protein of the virus according to claim 1.

Claim 6 (canceled).

Claim 7 (previously presented): A diagnostic kit comprising a protein according to claim 4.

Claim 8 (canceled).

Claim 9 (currently amended): The vaccine according to claim 15 or 18, further comprising an adjuvant.

Application No.: 09/147,801
Amendment dated September 28, 2004
In response to Examiner's Office Action dated April 28, 2004

Claim 10 (canceled).

Claim 11 (previously presented): A pharmaceutical composition comprising a protein according to claim 4.

Claims 12-14 (canceled).

Claim 15 (previously presented): A vaccine comprising a protein according to claim 4.

Claim 16 (previously presented): A method for preventing or treating infection in a mammal, including a human, by a virus comprising in the non-coding region of its viral genome a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 and sequences at least 75% identical to SEQ ID NO: 1, said method comprising administering to said mammal a prophylactically or therapeutically effective amount of a composition selected from the group consisting of:

(a) a protein according to claim 4;

(b) a pharmaceutical composition according to claim 11; and

Application No.: 09/147,801
Amendment dated September 28, 2004
In response to Examiner's Office Action dated April 28, 2004

(c) a vaccine according to any one of claims 9, 15
or 18.

Claim 17 (canceled).

Claim 18 (previously presented): The vaccine
according to claim 15, said vaccine further comprising a
subunit of a virus, said virus comprising in the non-coding
region of its viral genome a nucleotide sequence selected
from the group consisting of SEQ ID NO: 1 and sequences at
least 75% identical to SEQ ID NO: 1.

Claim 19 (canceled).